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OPENING PANDORA'S BOX:
The U.S. Army in Combined Contingency Operations

A Monograph
by

Major William A. Gregory
Field Artillery

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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ATTN: ATZL-SWV
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Major William A. Gregory

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Approved by:

Robert H. Berlin
Robert H. Berlin, Ph.D. — Monograph Director

James R McDonough
COL James R. McDonough, MS — Director, School of Advanced Military Studies

Philip J. Brookes
Philip J. Brookes, Ph.D. — Director, Graduate Degree Program

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Abstract

OPENING PANDORA'S BOX: THE U.S. ARMY IN COMBINED CONTINGENCY OPERATIONS by Major William A. Gregory, U.S. Army, 59 pages

Field Manual 100-5, Operations, the U.S. Army's keystone warfighting manual, states: "In addition to operating as part of a joint force, the Army must be prepared for combined operations with land, air, and naval forces of allied governments." The manual goes on to observe that where formal alliances and established combined commands do not exist, "US and allied forces will have to work out procedures for combined operations under the pressure of imminent conflict or even while operations under way." Thus, FM 100-5 sanctions what is in effect an ad hoc approach to the business of conducting combined contingency operations; such an approach is inherently dangerous from the outset.

The purpose of this monograph is to identify ways the Army can improve its capability to operate in a combined contingency environment, before the exigencies of combat exacerbate an already complex undertaking. The monograph begins by presenting an overview and analysis of the existing doctrine that governs the Army's preparation for, and practice of, combined operations, in order to identify doctrinal shortfalls that constrain the Army's ability to plan and execute those operations. The monograph then turns to analyses of theory and historical practice to discern some possible solutions to the doctrinal deficiencies noted. In so doing the monograph offers some recommendations that, if accepted and implemented, may move the U.S. Army toward an improved capability to plan for, and execute, combined operations in contingency environments.

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INTRODUCTION

There is at least one common theme that unites the major wars of the twentieth century in which the United States Army has participated: In World War I, World War II, Korea, Vietnam, and the Persian Gulf, the U.S. Army fought as part of a coalition.

That trend will probably continue as long as collective security remains one of the pillars of U.S. national security strategy. Because the United States is currently party to seven formal alliances and maintains bilateral defense agreements or less formal security arrangements with literally scores of other nations,[1] the chances are good that the United States will be called upon at some point in the future to fulfill the terms of its agreements with one or more of those nations.

Given this prospect of probable involvement in coalition warfare, the U.S. Army must be prepared to conduct combined operations with the land, air and naval forces of allied nations. FM 100-5, Operations, the Army's keystone warfighting manual, states that in developed combined theaters such as the North Atlantic Treaty Organization (NATO), "doctrine, procedures, and principles have been developed and practiced to minimize the problems of inter-allied coordination."[2] But what happens in contingency situations where the benefits of

an existing alliance structure are not to be found? FM 100-5 responds:

> Elsewhere, agreements on doctrine, principles, and operating techniques are only partially developed *or do not exist at all.* In such theaters, US allied forces will have to work out procedures for combined operations *under the pressure of imminent conflict or even while operations are under way* (emphasis added).[3]

Attempting to "work out" combined operational procedures just prior to or during the actual conduct of combat operations portends of potential disaster--a disaster that may be avoided or at least mitigated in part by concerted efforts in peace as the Army prepares for war.

The purpose of this monograph is to identify ways the Army can improve its capability to operate in a combined contingency environment. The monograph begins by reviewing and analyzing the current existing doctrine that governs the Army's preparation for, and practice of, combined operations. Once the doctrinal weaknesses and shortfalls that constrain the Army's ability to plan and execute those operations have been identified, the monograph turns to analyses of theory and historical practice to discern some possible solutions to the doctrinal deficiencies noted. The monograph concludes with some recommendations that, if accepted and implemented, may provide a basis for positive change toward the aim of an enhanced U.S. Army capability to

plan for, and execute, combined operations.

Before beginning the analyses of doctrine, theory, and historical practice, it is necessary to briefly describe the structural framework that will be used for the analyses. The Blueprint of the Battlefield, Training and Doctrine Command (TRADOC) Pamphlet 11-9 (hereafter cited as Blueprint), was designed to serve as an Army-wide common reference system to analyze and integrate operations, assess the ability of combined military forces to achieve strategic objectives, and assist in the development of doctrine and training.[4] For these reasons, the Blueprint is ideally suited as an analytical framework for examining the Army's role in combined operations.

At the operational level of war, six operational operating systems comprise the Blueprint: operational command and control, operational movement and maneuver, operational support, operational fires, operational intelligence, and operational protection.* These six operating systems provide both the structure and criteria for the doctrinal discussion that serve as the monograph's starting point, the analyses of theory and historical practice that seek insight into the problems identified, and the concluding recommendations.

* A more detailed explanation of the operational Blueprint may be found at Appendix 1.

I. COMBINED DOCTRINE: OVERVIEW AND ANALYSIS

No unified doctrine or single source document exists that governs the U.S. Army's role in combined operations.[5] What follows is a synthesis of the best available guidance found in the many disparate doctrinal publications that address combined operations. Each of the operational operating systems are addressed in turn.

Combined Operational Command and Control

Doctrinally, operational direction can be exercised by an alliance in essentially one of three ways: a single nation may be designated to provide the command and control (C2) structure for the combined force, as the United States did during the Korean War; a binational or multinational C2 structure may be established to plan and execute combined operations, similar to the establishment of Allied Forces Headquarters in World War II; or some combination of the two, where the C2 structure consists of a single combined commander and a central combined headquarters to coordinate the activities of the national contingents. A variation of this third type of command arrangement was used by the coalition during the recent conflict in the Persian Gulf.

As a general rule, regardless of the type of C2 structure used, "national contingents normally retain command of their own forces, relinquishing operational command or operational control of the force they commit

to combined operations."[6] This means that U.S. Army units will most likely fight under the command of U.S. Army officers as directed by the combined commander, and that U.S. Army commanders may find themselves exercising operational control over other national contingents.

There is no designated doctrinal "solution" to the combined forces command and control issue, nor should there be. Political conditions, the threat, the theater of operations, the respective military capabilities of the coalition members, and other factors help determine the type of command and control structure needed to plan and execute operations. Regardless of the type of command arrangement settled upon, the alliance should designate a single commander to direct the combined efforts of all the participating national forces.[7]

Many factors militate against the effective planning and execution of combined operations. Among the most important of these factors are: national differences in military organization, doctrine, equipment, and tactics; culture; commonality of objectives; time; personalities; and language. Overcoming these obstacles presents monumental challenges to the combined force in general, and to the operational planner in particular. Logically, he should be able to turn to doctrine for assistance. In reality, however, the answers found in doctrine often raise more questions than they resolve. Two sources that

provide some meaningful, though limited, insight into the command and control of combined operations are Unified Action Armed Forces (UNAAF)(JCS Pub. 2), and FM 100-7, The Army in Theater Operations.

The UNAAF tasks commanders-in-chief (CINCs) to "identify the requirements and implications of combined operations, organize forces to accomplish specific and implied tasks, train tc achieve force effectiveness, and conduct combined operations as necessary."[8] To accomplish his charge, the CINC must produce the doctrine, tactics, techniques, and procedures required to conduct those operations within his theater.

The "how to" guidance that accompanies the CINC's mission falls into one of two categories: nebulous or nonexistent. Recommendations such as "training exercises are necessary to practice combined warfighting, certify interoperability, and evaluate doctrine, tactics, techniques and procedures" are valuable but all too limited in number. In light of the complex nature of the assigned mission, the existing guidance contained in the UNAAF is simply insufficient in scope.

Like the UNAAF, FM 100-7, The Army in Theater Operations, provides some limited guidance for planning and executing combined operations. Operational plans, it cautions, "must be clear and simple" and avoid "obscure or nonstandard language, complex schemes of

maneuver, intricate timing, and multiple changes in command relationships."[9] FM 100-7 also notes that during execution, an essential key to success is effective liaison among national contingents.[10] Liaison is important enough to the success of combined operations that it deserves definitive doctrinal treatment.

The paucity of doctrinal guidance related to the planning and execution of combined operations is not limited solely to command and control; it is a malady that characterizes the majority of the operating systems.

Combined Operational Movement and Maneuver

Little doctrine exists regarding the movement and maneuver of the combined force to achieve decision on the battlefield. FM 100-7, The Army in Theater Operations, discusses in some depth the concept of operational movement and maneuver, but does not relate it to the combined environment. As the capstone manual for the Army echelon that will be charged with planning and executing combined operations, it should. FM 100-5 does not address combined maneuver in any detail, though guidance such as "plans should reflect the special capabilities of each national contingent" and "detailed planning with emphasis on rehearsals and careful wargaming should precede operations in which allied units will cooperate for the first time" certainly are cogent.[11] But given the difficulties inherent in just moving and

maneuvering large, multinational formations--not to mention trying to synchronize that maneuver with the other operating systems-- requires a more comprehensive and instructive doctrinal base.

Combined Operational Support

Nowhere are the difficulties that plague combined operations more perplexing than in the arena of combined operational support. The general consensus on the issue can be summed up in one sentence: "In coalition warfare, logistics are typically a national responsibility."[12] This position is untenable for three reasons: first, it violates the principle of unity of command and subverts unity of effort; second, it ignores common-sense economy of scales considerations; and third, it conflicts with NCA guidance that the unified CINCs "will ensure that assistance is rendered to allied forces in accordance with assigned responsibilities and as directed."[13] Fortunately, our doctrine recognizes the cogency of this argument, and assumes as its charter the responsibility to provide definitive, practical guidance on how to support the combined force.

FM 100-5 states that "combined commanders should form a combined logistics staff as early as possible."[14] Further, it recommends that a single combined supply agency be established to obtain, manage, and distribute the maximum number of common-user items possible, and

that arrangements be made to optimize available host nation services, supplies, and facilities.[15]

FM 100-16, Support Operations EAC [Echelons Above Corps], provides a detailed concept for combined operational support in a contingency theater of operations. The concept describes support activities that must be accomplished during three phases of a contingency operation: peacetime preparation, transition to war, and combat operations sustainment.[16] With the exception of one task, that of conducting theater reception operations, FM 100-16 provides a solid doctrinal foundation to guide the planning and execution for all major operational support subfunctions.

Combined Operational Fires

FM 6-20, Fire Support in the Airland Battle, is the Army's capstone manual for fire support, yet it fails to address either operational fires or fire support within the combined operations context. FM 100-6, Large Unit Operations, offers a definition of operational fires, ascribes responsibility for them as "the province of theater air forces," and predicts that future technologically advanced surface delivery systems will increase the operational employment of fires, but no discussion of the planning and execution of combined operational fires is offered.[17] This scarcity of doctrinal guidance forces the combined commander into ad

hoc arrangements that are wholly unacceptable, given the enormous complexity and difficulties involved in synchronizing the fire support system to support the commander's intent and achieve operational objectives.

Combined Operational Intelligence

Four principal U.S. Army doctrinal publications address operational intelligence: FM 100-5, Operations; FM 100-6, Large Unit Operations; FM 34-37, Echelons Above Corps Intelligence and Electronic Warfare Operations; and FM 34-1, Intelligence and Electronic Warfare Operations. Two of these, FM 100-6, and FM 34-1, limit their respective discussions of combined operational intelligence to an observation that the issue of shared intelligence is "difficult and can become a source of internal discord"[18], and to an enumeration of the mission essential tasks of the Military Intelligence Brigade.[19]

Fortunately, FM 100-5 and FM 34-10 are more expansive in their treatments of the issue. FM 100-5 highlights the dichotomy that confounds the intelligence aspect of combined operations: the question of striking the balance between national concerns for intelligence systems' security and the operational need for shared access to those systems. In practice, the former dominates, and "allies normally operate separate intelligence systems in support of their own policy and military forces."[20] Ideally, however, all partners of

the coalition with a "need-to-know" have access to the combined intelligence system and its products. This is best accomplished through the creation of a combined intelligence staff, lateral linkage of allied headquarters via intelligence liaison officers, and assignment of tactical intelligence units where they can best support operational requirements.[21]

FM 34-10 expands on the combined intelligence staff concept and presents a prototype staff structure. The manual also extends the discussion by addressing eight principles upon which combined intelligence operations should be based. These include: develop a combined intelligence and electronic warfare (IEW) system; establish channels for the flow of IEW data; establish standard procedures for IEW operations; develop a secure, reliable communications capability; establish liaison between allied IEW units; ensure a linguist capability; establish a common data base including formats; and ensure interoperability of equipment.[22] The principles provide a sound basis for action; supporting tactics, techniques and procedures (TTP) must be developed, implemented, and practiced in order to make the combined operational intelligence system work.

Combined Operational Protection

Despite the fact that FM 100-5 pronounces "protection" as one of the four dynamics of combat power,

no source addresses the specific issue of combined operational protection. Selected doctrinal publications do, however, deal with the specific functional concerns of operational air defense and operational deception.

FM 44-1, U.S. Army Air Defense Artillery Employment, discusses the task of providing air defense for the combined force and provides a type organizational command and control structure for combined air defense. FM 100-44, U.S. Army Air Defense Operations, begins its discussion of theater air defense with the observation: "History illustrates the need for synchronization between ground and air forces and the synergistic effect of synchronization," and then goes on to give examples to support the point.[23] Unfortunately, the details of how to achieve that synchronization within the combined force are not forthcoming.

FM 100-7 sums up operational deception in the combined setting: "The scale of operational deception requires the maneuver of large joint and combined forces." The topic receives only passing attention in FM 90-2, Battlefield Deception as well. FM 90-2 highlights the problems that exist in coordinating and executing combined deception operations, but does not venture beyond. Once again, a doctrinal shortfall leaves much fertile ground for research, analysis, doctrinal development and operational practice unplowed, for

combined operations present the operational planner with unique opportunities with regard to deception not possible in unilateral operations.

As can be seen from this analysis, the first step that must be taken if the Army is to improve its ability to operate in a combined environment is the creation of a coherent, overarching combined operations doctrine. Once that "capstone" doctrine is developed, it must be complemented by supporting functional doctrines that delineate combined operations' tactics, techniques, and procedures for each of the operational operating systems.

Admittedly, the process of creating and/or refining doctrine is easier said than done. To assist in the process of filling the doctrinal void that has been identified, two resources rich in largely untapped potential--coalition warfare theory and the U.S. Army's historical practice of combined operations--will be explored in turn.

II: THEORETICAL IMPLICATIONS OF COALITION WARFARE

Like doctrine, no single, coherent body of theory exists that explains "coalition warfare," "alliance warfare," or "combined operations" (terms used interchangeably within this paper to denote the same phenomenon). If one accepts the Clausewitzian dictum that war is an extension of politics, then the political

nature of coalitions must be recognized as the distinguishing feature of coalition warfare.

The first and primary obligation of any state is to ensure its self-preservation; it is for that reason that states enter into military alliances. Within alliances, states usually act in accordance with their perceived self-interests. This theme of "national self-interest" inescapably dominates every facet of coalition warfare and influences activities at all three levels of war--strategic, operational and tactical. Clausewitz put the matter in perspective when he cautioned: "One country may support another's cause, but will never take it so seriously as it takes its own."[24]

Clausewitz's observation also points to another characteristic of coalition warfare: the transient nature of alliances. An alliance's vitality can be measured by the degree to which the alliance serves member states' interests. When the costs of alliance membership exceed the value of the interest accrued from that membership, disaffection on the part of one or more states may result. A state's disaffection may manifest itself in ways ranging in extremes from rhetorical bluster to unilateral withdrawal from the alliance.

The cost of alliance membership is not the only cause of member dissatisfaction; competing states' interests also serve as a potent source of discord within

the alliance structure. These interests often collide as a matter of routine, but they become particularly fractious at two times during the conduct of combined military operations: when the coalition nears defeat, and when it nears victory.[25]

As a coalition nears defeat, states' interests assume even greater importance than in the routine course of alliance business. The survival instinct takes hold, and member nations seize any opportunity that will ensure their longevity. Exodus from the alliance often ensues; predictably, the alliance crumbles.

Surprisingly, as the coalition approaches victory, success itself becomes a source of affliction as the British military thinker B.H. Liddell Hart explained:

> Where there is no longer the counterbalance of an opposing force to control the appetites of the victors, there is no check on the conflict of views and interests between the parties to the alliance. The divergence is then apt to become so acute as to turn the comradeship of common danger into the hostility of dissatisfaction--so that the ally of one war becomes the enemy of the next.[26]

Clearly, political considerations will often outweigh or even obviate military ones. The operational planner must recognize this and prepare accordingly. To do otherwise risks designing campaigns predicated on false assumptions or depending on hope as a course of action--practices which virtually guarantee failure.

The transitory nature of alliances poses a similar

challenge; military operations may have to be conducted amid political machinations that influence everything from the composition of the combined force to the objectives of the coalition itself. The campaign design must accommodate these considerations when possible.

Clausewitz argued that the first principle of operational planning was to identify the enemy's center of gravity and attack it with "utmost concentration."[27] Recognizing this, the first task of the planner is to reduce the sources of the enemy's strength to a single, identifiable center of gravity. Clausewitz concluded that, in coalition warfare, the center of gravity may be the political solidarity of the alliance itself.[28] Similarly, Sun Tzu counseled that the key to a successful offensive strategy was to disrupt the enemy's alliances.

> Look into the matter of his alliances and cause them to be severed and dissolved. If an enemy has alliances the problem is grave and the enemy's position strong; if he has no alliances the problem is minor and the enemy's position weak.[29]

The preceding discussion demonstrates that alliances present the operational planner with special challenges that he must consider in designing operations that attack the enemy's center of gravity while protecting his own. These challenges may be viewed in terms of opportunity and risk. Opportunity resides in identifying and successfully attacking fissures in the opposing alliance structure; risk stems from the prospect that the enemy

will attempt to reciprocate in kind.

Two schools of thought exist on how to exploit the opportunity of attacking the enemy alliance. Clausewitz maintained that if the interests and forces of the allies are subordinate to those of a single leader, the campaign design should concentrate a decisive blow against that leader. He argued that "as a principle if you can vanquish all your enemies by defeating one of them, that defeat must be the main objective in the war."[39]

A second methodology in attacking the alliance as the center of gravity emphasizes the indirect approach. Rather than focusing on the strongest member of the alliance, efforts are concentrated against the weakest members. The Soviets demonstrated this approach during World War II by designing their operations to attack German allies so as to avoid superior German formations.

Regardless of the methodology used to attack the political solidarity of an opposing alliance, the operational planner risks failure if he fails to protect the integrity of his own. The prudent planner assesses how that risk is to be minimized. In Clausewitz's view, "how" lies in the concept of integration.

Clausewitz recognized the difficulty in preserving an alliance's integrity. Accepting the reality that unity could never be absolute among allied armies, he believed that political integration of alliance partners

would generally be sufficient that an attack on one would ensure the involvement of the rest.[31]

Military integration descends from its political antecedent. This reality renders the issue of military exigency versus political expediency moot. Once the political decision has been made to integrate militarily, the issue becomes one of how to best accomplish the mission. Clausewitz described the alternatives:

> [T]he question is whether the various allied troops are better mixed, so that armies have corps of different nationalities...or better kept as separate as possible so that each can play an independent role. Clearly the first is the better plan; but it assumes a rare degree of friendliness and common interest. With forces integrated in that way their governments will find it much more difficult to pursue their private interests.[32]

Here Clausewitz defines "integration" in two ways: the first, where an integrated command and force structure characterizes the combined force; and the second, where the combined force is comprised of a parallel structure of national forces that act independently.

Clausewitz notes that the integrated structure ("the better plan") requires "a rare degree of friendliness and common interest." As a case in point, he cites the Czar of Russia's placement of his Russian army under the direction of Prussian and Austrian generals in the fight against Napoleon in 1813, even though Russia fielded the preponderance of forces.[33]

In the second case, where the required degree of

common interest cannot be achieved, a parallel structure may prove the best course of action. "If forces are wholly separate it is easier to divide the burdens; each army will then suffer only from its own. Circumstances will, therefore, stimulate each to greater efforts."[34]

Integration, then, is a goal to be pursued, but only to the degree that the parties to an alliance are willing to invest in the principle of unity of command. Absent that commitment, integration becomes an exercise that is perfunctory at best and counterproductive at worst.

As a final note, Clausewitz counseled: "Lastly, it remains to be said that wherever possible troops and commanders should be assigned missions and areas appropriate to their special activities."[35] This piece of common-sense advice must not be lost to the operational planner; indeed it should be considered a key element in the operational design of combined campaigns.

To summarize, the political nature of coalitions is the distinguishing feature of coalition warfare. States usually enter into coalitions or alliances because it is in their self-interests to do so. These national self-interests dictate states' actions within an alliance--actions which transcend all three levels of war. The degree of commonality of interest shared by alliance partners determines the measure of alliance strength. As a potential center of gravity, that strength presents

the operational planner with opportunity and with risk.

In designing campaigns, the operational planner must seek and exploit the opportunity to attack the enemy's center of gravity--the fabric of the alliance itself--while minimizing the risk to the integrity of his own. Integrity is preserved through two means: unity of command and integration. Unity of command is an absolute that must be achieved if coalition warfare is to be waged successfully. Integration should be pursued both politically and militarily, for it is a vehicle that can cause states' interests to converge.

Clausewitz also had much to say about the use of history. He wrote: "Historical examples clarify everything and also provide the best kind of proof in the empirical sciences. This is particularly true in the art of war."[36] The analysis that follows seeks to illumine the U.S. Army's historical role in combined operations, and to discern some lessons that may be applied by the Army as it prepares for future combined operations.

III: HISTORICAL ANALYSIS

The Army's historical participation in combined operations has yielded a plethora of experiences that can be used as case studies for analysis. Three experiences are particularly revealing with regard to coalition warfare: the Mediterranean Theater of Operations (MTO)

during World War II, the Korean War, and OPERATION DESERT STORM, the recent action in the Persian Gulf. The MTO was selected for analysis because it afforded insight into the intricacies of an emergent combined staff as it directed operations in a relatively undeveloped theater of operations. Korea's similarities with contemporary coalition warfare--including its contingency nature, United Nations' coalition involvement of over a dozen nations of varying interests and military capabilities, and U.S. leadership of the coalition--made it a compelling choice for study. And because of the stunning success experienced by the U.S.-led coalition in DESERT STORM, some preliminary observations regarding U.S. Army doctrine and training are appropriate. Following each of the combined operations studied, lessons learned and the implications they hold for training, doctrine and practice are summarized for selected operating systems.

World War II: The Mediterranean

During World War II, political and military exigencies dictated that the Anglo-American alliance formulate a combined command system to wield control over the combined allied forces. Combined operations in the Mediterranean Theater of Operations (MTO) were particularly instructive with regard to the command and control and support operational operating systems.

Operational command and control of the combined

forces proved to be the most important, and perhaps most difficult issue facing the Anglo-American alliance in North Africa. In order that "the atmosphere of the combined headquarters [be] cleared of its mutual doubts and misgivings" between the British and Americans, a mutually-derived and accepted set of common principles governed alliance operations.[37]

The first of these principles, unity of command, was achieved with the appointment of a U.S. officer as the combined force commander. A U.S. Army officer was selected to fill that billet for two reasons: first, the United States provided the bulk of the men and materiel for the combined force; and secondly, the theater campaign would largely be a ground one.[38]

A second principle, that of balanced, integrated staffs, greatly enhanced combined operational planning, as did a third, the "Best Man for the Job" principle. In combination, these two principles meant that the respective interests of the U.S. and Britain would be accommodated and safeguarded both horizontally and vertically throughout the command hierarchy, and that the best qualified personnel filled the key staff positions, regardless of nationality.[39]

These last two principles, however, applied to the command, intelligence (G2), and operations (G3) staffs only. Because of major differences in organization,

procedures, equipment, and channels of communication, the U.S. and British staffs maintained parallel personnel (G1) and supply (G4) systems.[40]

A combined command and staff arrangement similar to that in North Africa later existed in the Italian Theater. The U.S. Fifth Army Headquarters featured integrated G2 and G3 staff sections that used U.S. staff procedures in day-to-day operations. As in North Africa, the G1 and G4 staffs remained organized functionally along separate national lines.[41] While these command and staff arrangements may have facilitated operational planning, they hampered execution because of the diffusion of effort inherent in dual support systems.

Fifth Army also faced the command and control challenges inherent in the task of molding national contingents from the United States, Brazil, France, Britain, and Italy into an effective fighting team. Each national force posed unique challenges to be overcome if that task was to be accomplished successfully.

The Brazilian division, trained and equipped on the American model, posed the least difficulty for Fifth Army. But because of inadequate training prior to arrival in theater, and an inability to master supply discipline once deployed, the Brazilian contingent was assigned supporting roles during tactical operations.[42]

The French were likewise equipped and organized on

the American system. Differences in tactics, however, proved to be a point of contention between American and French units. French tactics emphasized speed at the expense of security--at least in the eyes of the Americans. The French tactic of bypassing significant pockets of enemy resistance to drive rapidly on to an objective often created difficulties for adjacent or trailing American units.[43] British tactics mirrored more closely those of the Americans than did those of the French, but administrative and logistical difficulties of the combined force were never fully resolved.[44]

Some of the lessons emanating by the U.S. Army's experience in the MTO with regard to operational command and control, training, and operational support remain valid today. Concerning operational command and control, the principle of unity of command again emerged as a dominant characteristic of successful operational warfighting. The Allied Force Headquarters experience also demonstrated the efficacy of a balanced, integrated command and control structure. Fifth Army's operations in Italy illustrated that training--both prior to deployment to the theater of operations and upon arrival in the theater--is a prerequisite for successfully executing the tactical battles that achieve the operational aim. Finally, unity of effort is something that must be achieved across the entire operational

spectrum; it is particularly critical with regard to operational support if the resources of the combined force are to be applied with optimum efficiency.

The Korean War

On June 25, 1950, the North Korean People's Army (NKPA) attacked across the 38th parallel into South Korea. Within two weeks of the invasion, the United States had secured the international and domestic political support necessary for a U.S. military response to the aggression. At the same time, the U.S. spirited a resolution through the United Nations (UN) Security Council that sanctioned UN intervention in the conflict. Subsequent resolutions conferred upon the United States the leadership of the UN coalition that would fight the war. President Truman, given plenary power as the UN's executive agent to prosecute the war, designated General Douglas MacArthur, Commander-in-Chief, Far East Command, as Commander-in-Chief, United Nations Command (UNC).[45]

On July 14, 1950, South Korean President Syngman Rhee placed the military of South Korea under the command of General MacArthur as part of the United Nations Command. MacArthur, in turn, directed Lieutenant General Walton Walker, commander of the Eighth U.S. Army in Korea (EUSAK) to assume command of the Republic of Korea (ROK) Army.[46] The precedent was thus set: unity of command at both the strategic and operational levels resided with

the United States, and concomitantly, with the U.S. Army. (Appendix 2: Chart 1, Channels of Command, July 1951.)

In spite of the mandates given to MacArthur and to his commanders, the practical problems stemming from the operational command and control of combined forces proved to be contentious issues. The first challenge was to resolve how the combined force would be commanded. The solution settled upon was that General Walker would exercise command authority over the ROK Army by communicating specific requests for ROK Army actions to the ROK Army's Chief of Staff; the Chief would then direct ROK forces to execute the actions requested. Surprisingly, the procedure worked well in practice.[47]

As the number of participating UN units burgeoned, United Nations Command faced the dilemma of how to organize and control the disparate mix of combat, combat service, and combat service support units. Because all UNC forces, except those of the United States and Korea, were of brigade size or smaller, UNC settled upon a formal integration policy in which UN forces were attached to U.S. formations.[48] (See Appendix 3: Chart 2- UN Command/FEC, Major Ground Forces, 1 Jul 51.)

The issue of operational support rivaled that of operational command and control in importance and exceeded it in complexity. At first glance, even in retrospect, logistics problems appeared insurmountable.

No infrastructure beyond the port at Pusan existed to support large-scale operations in Korea. Support could come from Japan, but there was no real infrastructure to get Eighth Army from there to Korea, and the support that was available in Japan nad been tailored to support a peacetime Army. Exacerbating the problem even more, Eighth Army assumed responsibility for supporting all UN forces less than a month into the war.[49]

Eighth Army fulfilled a dual role as a command and control headquarters: it functioned both as a field army and as a theater army. That meant that in addition to being the operational headquarters that would design and fight the campaign for Korea, Eighth Army would also exercise administrative and logistic responsibilities for the combined force as well. Those responsibilities encompassed receiving and training UN forces in theater; improving and managing the infrastructure throughout the theater of operations; manning, fixing, and arming the combined force; providing for COMMZ security; handling prisoners of war; and administering civil affairs.[50] Because these same activities will likely characterize any future combined operation, Eighth Army's execution of these functions merit discussion.

The commitment of combat units of varying sizes, organizations, doctrines, and levels of training by increasing numbers of the United Nations members created

a pressing need for a reception and training center within the Korean theater of operations. In response to this need, Eighth Army created the United Nations Reception Center (UNRC). Its mission was "to clothe, equip, and provide familiarization training with U.S. Army weapons and equipment to UN troops as determined essential for operations in Korea by the Reception Center Commander."[51] As units from the U.S., Thailand, India, the Netherlands, France, Greece, Ethiopia, Belgium, and Luxembourg passed through the center, emphasis shifted from a reception function to one of training and evaluation--so much so, that "the UNRC ultimately became a testing laboratory where the tactical commanders could obtain a preview of a unit's worth."[52]

Reception and training of UN forces comprised but one aspect of EUSAK's support responsibilities. EUSAK was also charged with developing theater infrastructure at the same time it was manning, fixing, and arming the combined force. EUSAK accomplished these functions through the 2d Logistical Command headquartered at Pusan. The command operated and maintained the ground line of communications to include ports, railroads and pipelines, and orchestrated associated supporting activities such as labor procurement and transportation. The command also coordinated the three different supply lines that ran through Pusan: one operated by and for U.S. forces and

the majority of UN forces in theater, one that supported British Commonwealth forces, and one for ROK forces.

In addition to providing total support to the majority of UN units, the U.S. supply line also furnished selected supply classes to Commonwealth and ROK forces.[53] The question of funding necessitated the establishment of policies and procedures for accountability and reimbursement as a principle governing allied logistics.[54]

Although each nation retained the responsibility for providing its own casualty replacements, EUSAK exercised oversight responsibility for the manning system. National differences in personnel replacement procedures forced EUSAK to maintain a "reserve pool" of UN brigade-size and smaller units from which to draw replacements, but this failed to alleviate the problem completely.[55]

Maintenance of equipment proved to be a vexing problem as well, for the variety of systems employed and their associated maintenance requirements mirrored the cosmopolitan makeup of the combined force. U.S. commanders of UN units found that attached national contingents lacked the proper organization, training, and equipment to maintain their assigned equipment.[56]

Once again the problem fell within Eighth Army's charter to solve. Eighth Army responded by tasking U.S. ordnance units to support all UN forces, less the Commonwealth nations. That support included direct,

general, and depot support for all units using U.S. equipment.[57] U.S. ordnance and supply units also armed the majority of the combined force. Rearming and reequipping essentially the entire ROK Army following its early catastrophic losses posed the first of many challenges the Army would face in executing that mission.[58] The U.S. also provided wholesale depot supply of ammunition to the French, Turkish, Greek, Dutch, Thai, Belgium, Filipino, Ethiopian, Columbian, and ROK units, and field ammunition supply point support for all of the contingents (except the ROK Army) as well.[59]

In the opening stages of the conflict, United Nations forces faced the very real prospect of annihilation by the North Korean Peoples Army. Operational fires, and UN airpower in particular, prevented that calamity.[60]

Throughout the war, UN air forces performed the gamut of air missions from the control of theater airspace to tactical support of the ground forces to perfection.[61] The protective embrace of airpower could be easily extended to practically any UN formation; tactical air control elements would simply be added when and where necessary.[62]

Less than a month after the war had begun, virtually all movements of North Korean combat and supporting forces had been stopped by UN Air Force

interdiction efforts. The UN air campaign's combination of this air interdiction with the close air support it provided to UN ground forces bought the UN forces the time needed to consolidate the Pusan perimeter, stiffen the defense, and set the conditions for the drive north.[63]

When battlefield momentum swung back to the North following China's entrance into the war, UN airpower once again rode its white horse to the rescue. UN airstrikes against enemy lines of communication crippled Chinese capabilities to sustain offensive operations. Once the Chinese had been halted for good, operational fires--both air- and artillery-delivered--enabled UN forces to successfully counterattack to maintain South Korea's territorial integrity.[64]

Early in the war, the U.S. recognized the need to augment the firepower of ROK divisions. By mid-September 1950, U.S. field artillery battalions had been attached to each of the six ROK divisions; U.S. artillery also supported other UN units having no organic fire support. Forward observers and liaison parties attached to allied maneuver units provided the U.S. commanders of the multi-national divisions with increased flexibility in supporting ground maneuver.[65] Firing an average of a million rounds a month, UN artillery proved its worth in bolstering what came to be called the Main Line of Resistance against Chinese communist attacks.[66] Thus,

although artillery may be considered a tactical weapon, Korea demonstrated that artillery fires are in effect operational fires when they are used to achieve results that contribute to combined forces' operational success.

Another success story emerged in the often contentious arena of operational intelligence. UN forces benefitted from the U.S. policy decision to release all classified intelligence up to, and including, the top secret level to commanders on a need-to-know basis. Although some compromises of classified materials initially resulted from intelligence passed to ROK divisions, ROK commanders over time responded to the U.S. act of faith with the same measures of reliability as their UN counterparts. The policy resulted in improved combined operational planning and execution.[67]

"Lessons learned" from the Army's experience in Korea fall principally within the domains of four operational operating systems: command and control, support, fires, and intelligence. Three lessons in particular stand out among those related to operational command and control. First and foremost, once again the principle of unity of command proved to be a prerequisite for successfully prosecuting combined operations. U.S. Army commanders were accorded full combatant command authority over attached UN units in Korea; prudence dictates the Army prepare for a likely recurrence of that

responsibility. Secondly, the practice of integrating battalion-size national units within U.S. regiments proved to work surprisingly well, as long as units were employed in accordance with their capabilities. Thirdly, Eighth Army's experience suggests that separate field army and theater army headquarters may be required to command and control operations and logistics respectively in order to effectively and efficiently synchronize the combined campaign as a whole.

Many lessons also emerged in the area of operational support. The creation of the United Nations Reception Center (UNRC) to fill a void in the theater force's capability to receive, process, and train arriving national units provides a model for applied practice in future combined operations. The U.S. Army took the lead not only in operating the UNRC, but in all of the operational support functions--a lead the Army can expect to retain in future combined operations.

UNC's successful employment of operational fires underscored two important factors: the importance of a synchronized combined targeting effort in setting the conditions for operational success, and the critical role of liaison in providing support for the combined force.

Finally, Korea demonstrated the value of shared operational intelligence. By making top secret information available to national commanders on a need-

to-know basis, operational command and control was enhanced without compromising operational security. A similar approach may prove useful in future operations.

OPERATION DESERT STORM

Although U.S. and allied forces remain in the Persian Gulf as of this writing, some initial thoughts are appropriate in light of the successes experienced by the combined force in OPERATION DESERT STORM. Comments regarding combined efforts in three of the operational operating systems are particularly apropos: fires, movement and maneuver, and protection.[63]

The first phase of DESERT STORM, the "air" campaign, would be more appropriately entitled the "operational fires" campaign, for the world witnessed the decisive, synergistic effects of synchronized air-, naval-, and ground-delivered operational fires of heretofore unprecedented dimensions. Operational fires appeared to have set the conditions for operational success by shaping the battlefield to conform to the commander's intent, thus contributing to the physical, cybernetic, and moral collapse of the Iraqi forces. Once DESERT STORM's ostensive successes have been validated, its operational fires campaign may serve as the basis for combined targeting doctrine and practice.

The importance of operational protection was poignantly demonstrated by U.S. air defenders using the

PATRIOT missile system to defeat Iraqi SCUD attacks on political and military targets. In this instance a tactical weapons systems achieved tactical and operational results by protecting the force, and political results by "protecting" the coalition.

During the ground combat phase of the campaign, another protection measure, operational deception, was used in conjunction with the operational movement and maneuver of the combined force to produce decisive results. "Using feints, breaches, air assaults, massive armored thrusts, and the 'Hail Mary' play in their tactics, U.S., allied and Arab coalition forces swiftly rolled up Iraq's army and Republican Guard."[69]

Fortunately for the coalition, the enemy allowed the combined force a almost six-month long period of unencumbered time in which to plan, prepare, and rehearse for combat operations; this is a luxury which may not be enjoyed by future coalitions. Thus, a word of caution is in order, for conditions change, and future opponents may be less accommodating than the Iraqis. Care must be exercised as the analysis of coalition successes and failures continues, and the lessons learned are codified in the Army's doctrine and training as it prepares for future combined operations.

In summary, the U.S. Army experience in combined operations in the Mediterranean, during World War II,

during the Korean War, and in the conflict in the Persian Gulf demonstrates that the U.S. Army can expect to shoulder responsibility for coordinating and executing all of the operational operating systems when it owns the majority of forces in a combined theater of operations. This expectation bears important implications for the Army in terms of its doctrine, organization, and training with regard to each of those six systems.

IV. TOWARD AN IMPROVED COMBINED OPERATIONS CAPABILITY

Thus far, we have examined and identified deficiencies in the Army's combined operations doctrine, and have suggested some theoretically-and historically-derived lessons that point the way toward improving that doctrin and the operational practice that flows from it. The following recommendations, arranged by operational operating systems, also aim at enhancing the Army's ability to perform in the combined environment.

Combined Operational Command and Control

Earlier in the discussion, "time" was cited as one of the factors that militate against the effective planning and execution of combined operations. Nowhere is time more crucial than in the area of command and control because "future conflicts will not allow time to experiment with command arrangements." Thus, "We must organize in peace as we will fight in war--the time is

now."[70] One possibility that appears promising with regard to maximizing available preparation time is the prospect of creating of a permanent Echelon Above Corps (EAC) field army organization that would exercise operational control over either the U.S. Army component of a combined force, or possibly over the ground component of the combined force itself. In the former circumstance, the theater or combined force commander would effect control over U.S. ground forces through the field army commander. In both cases, a separate theater army structure may also be employed to support joint and/or combined forces as directed.

Another aspect of command and control, that of personalities, plays an extremely important role in combined operations. Emerging from DESERT STORM are two key personalities that stand out as ideal case studies for analysis: General H. Norman Schwarzkopf, Commander of U.S. Central Command, and de facto commander of the coalition forces in theater, and Major General Paul R. Schwartz, "manager" of the combined Saudi-American operations center, formally known as the Coalition, Coordination, Communication and Integration Center.[71] These two men were the glue of the coalition, demonstrating the qualities that "are essential to the success of a coalition or combined forces commander: professional skill, ingenuity, capacity for broad

thought, knowledge of alliance and national policies, sensitivity to national views, diplomacy and tact, staying power, leverage or influence, and primacy of position."[72] History confirms the DESERT STORM experience: selecting the best qualified commanders and staff officers for combined command and staff billets is critical to coalition success. Clearly, it is incumbent upon the Army to accomplish this task with great care.

Combined Operational Movement and Maneuver

Preparing the Army to participate in and/or control the operational movement and maneuver of a combined force may be the most difficult operational task facing the Army in a peacetime environment. Even if the U.S. could determine in advance who its allies will be in the next contingency operation, political considerations, costs, and lack of adequate maneuver areas would likely preclude the type of peacetime training needed to facilitate wartime execution. Nevertheless, there are several ways to make the peace-to-war transition easier.

First, the Army must continue to train with its potential allies. Combined training exercises such as REFORGER, TEAM SPIRIT, and BRIGHT STAR must be retained at a minimum as command-post exercises (CPXs), and ideally as full-blown field training exercises so that the combined force may be realistically exercised in operational movement and maneuver. The feasibility of

a training program where self-contained, brigade-sized maneuver units are "exchanged" between U.S. and its allies for specific exercises may be worth investigating.

Secondly, selected Standardization Agreements (STANAGs) developed and used by NATO that specify tactics, techniques, and procedures for conducting operations may be directly transferable to the combined contingency environment. Existing STANAGs should be reviewed, adopted, and expanded as necessary not only to facilitate movement and maneuver, but to improve integration among all of the operating systems.

Finally, the importance of liaison cannot be overemphasized in achieving the degree of synchronization necessary to move the force to the right place on the battlefield, and to exploit the opportunities of that movement through decisive maneuver. The Army must devote additional efforts to the identification, selection, and training of liaison officers in all functional areas.

Combined Operational Support

"The fundamental challenge of coalition logistics," wrote Cushman, "is to resolve the contradiction between national responsibility for logistic support of the one hand, and the senior commander's responsibility for mission accomplishment on the other."[73] The problem is that when logistics remains a national responsibility, the combined commander loses the operational flexibility

he needs to fight a coherent battle.

Take NATO as a case in point. Despite over forty years of largely successful cooperation among alliance members, unresolved interoperability problems with equipment, communications, and operational procedures render operational imperatives like the reconstitution of forces impracticable along other than national lines.[74] Thus, unless and until operational support issues are resolved, logistics considerations may not only constrain the combined force commander in his employment of various national formations; those considerations may indeed drive operational planning and execution.

Resolving combined operational support issues is obviously tough to do. The Army would be remiss to ignore them, however, until the crisis of combat forces the Army to come to grips with them.

The Korean War demonstrated the cost of using separate national supply lines to support a combined force within a theater of operations; both unity of effort and economy of effort fell victims to such a fragmented arrangement. Conceptually, one designated nation should operate a single supply system that integrates the maximum number of common-use supply items to support the force as a whole. Personnel and materiel resource augmentation could be provided by the other participating nations. Logically, the U.S. Army, and in

particular, the Theater Army would be that single agency charged with supporting the combined force.

In addition to its supply and services functions, Theater Army bears responsibility for another extremely important aspect of operational support: the reception and training of coalition forces in theater. In this regard, the creation of a Table of Organization and Equipment (TOE) reception and training center merits consideration. Conceptually it could be based on the United Nations Reception Center that emerged at the outset Korean War, where "under U.S. tutelage the interoperability shakedown occurred" and many problems were solved "before the exigencies of combat."[75]

Combined Operational Fires

If the success experienced in OPERATION DESERT STORM is a true measure of the United States' ability to synchronize the operational fires available to a combined force, then the task at hand is simply one of capturing the combined operational DECIDE-DETECT-DELIVER process[76] developed and employed during that campaign and formalizing it in fire support doctrine. We must then institutionalize the experience gained--a responsibility that falls upon both the Army's institutional training base and the operational field commands--so that the operational proficiency may be sustained.

Combined Operational Intelligence

The Army's historical experience in combined operations, reinforced by contemporary combined training exercises such as REFORGER and TEAM SPIRIT, suggests that there is a standard fare of operational intelligence issues which may be resolved, at least in part, during peacetime preparation for war. Such issues include: policies and procedures for intelligence processing and dissemination; how coordination among allied units will be accomplished; how operational and tactical intelligence system support assets will be shared, logistically supported, and protected; and how language difficulties will be solved. In a recent TEAM SPIRIT exercise involving U.S. and Republic of Korea forces, the formation of an integrated All-Source Intelligence Center (ASIC) and the use of standardized intelligence report formats enhanced the timely flow of combat information within the combined force."[11] The potential universal utility of such practices are apparent, and beg for formal codification in both doctrine and practice.

The issue that undergirds all others in the realm of operational intelligence is one of the competing needs of combined operational flexibility versus U.S. national security concerns. The solution to the question of how much access U.S. allies should have to U.S. intelligence capabilities is a relatively simple one: minimize access

to the systems themselves, but maximize access to the intelligence products of those systems. Finally,

> If the intelligence effort of the air-land force as a whole...lacks integration--that is, if the tasking, the collection effort, the information processing and distribution, and the interpretation and timely sharing of relevant data are not characterized by harmony and teamwork, and of the full range of means available is not used to the optimum benefit of all--that timely and reasonably complete knowledge of the enemy which is so essential to battle commanders at every level and which is so often decisive in war will be gravely diminished or may even be denied.[78]

Combined Operational Protection

The observations made for operational fires in relation to DESERT STORM apply in general terms to the operational protection functions as well. But a codicil must be added here: in future combined operations we may encounter an enemy that has much greater capabilities and the propensity to use them to attack the fighting potential of the friendly combined force.

One of the most difficult protection tasks is providing effective operational air defense against a capable enemy. Even in a developed theater such as NATO, developing a truly integrated air defense network remains an elusive objective.[79] Nevertheless, work must continue in developing a combined operational air defense command and control system that facilitates attack of enemy aircraft yet safeguards both friendly air and ground forces.

V. CONCLUSION

In light of the global interests, responsibilities, and commitments of the United States, it is incumbent upon the U.S. Army to be prepared to conduct combined operations with the military forces of allied nations. In so doing, the Army's first step must be to overcome the institutional procrastination that has characterized the U.S. military in the past:

> Historically, the problems of [combined operations] have been solved--when they have been solved at all--primarily through trial and error during the actual conduct of operations over an extended period of time. This is a costly process, in terms of men, material, and time...[80]

The Army simply cannot afford to waste resources that are both valuable and limited; we must act now to meet the demanding challenges inherent in combined operations that lie ahead.

To prepare for those challenges, the Army must develop a coherent doctrine for combined operations. Efforts can then be focused on reducing the costs in men, time, and materiel associated with come-as-you-are coalition warfare. In sum, the exigent nature of combined operations demands the best preparation possible prior to their execution; neither improvisation nor hope will suffice as courses of action when success hangs in the balance.

APPENDIX 1: THE ANALYTICAL FRAMEWORK

The Blueprint of the Battlefield, TRADOC Pamphlet 11-9, is actually comprised of three separate "Blueprints" that list and describe the Army battlefield functions peculiar to the strategic, operational, and tactical levels of war. At the operational level of war, six operational operating systems (OOS) comprise the operational "Blueprint" (hereafter simply referred to as Blueprint), and define the major functions that must be performed to successfully execute campaigns and major operations. These six OOS--Operational Command and Control, Operational Movement and Maneuver, Operational Support, Operational Fires, Operational Intelligence, and Operational Protection--are briefly explained below.

Operational Command and Control focuses on the planning and executing campaigns and major operations to secure alliance objectives. Effective planning and execution depends on the ability of a single, properly designated, combined commander to exercise authority and control of the operational forces available to him. Fundamental, critical decisions the commander must make in order to set the conditions for success include the assignment of missions and areas of responsibilities, the allocation of resources, and the establishment of the command relationships that govern the whole. The

commander's principal challenge is to achieve synergism within and with his force, so that the multiplicative effect of the whole exceeds the aggregate sum of the individual parts. The pervasive theme of the operational command and control OOS is the importance of unity of command, the timeless principle of war that ensures that all efforts are focused on a common objective under one responsible commander.[81]

Operational Movement and Maneuver describes two complementary, but distinct functions that contribute to the combined force's capability to achieve its objectives. "Movement" involves the initial deployment or subsequent shifting of forces within the theater of operations in order to secure the operational advantage of position. "Maneuver" entails the deployment of the combined force to and from battle formations and the extension of the force to operational depths to exploit tactical successes within the theater of operations. In tandem, operational movement and maneuver seek to position and employ the combined force so as to defeat the enemy's center(s) of gravity.[82]

Operational Support encompasses all logistical and support activities required to support the combined force within a theater of operations. Primary functions include arming, fueling, fixing, manning, distributing, and providing services. Associated subfunctions that are

essential for success but are particularly difficult to orchestrate in the combined environment include the theater-wide training of replacement personnel and units, prisoner of war processing, and refugee control.[83]

Operational fires' planning falls within the realm of the command and control function. Synchronized execution, however, falls in the realm of the Operational Fires OOS. The object of the DECIDE-DETECT-DELIVER process at the operational level is the effective integration of all available combined operational assets (including naval-, air-, space-, and ground-launched rockets, cannons, and missiles; Special Operating Forces; conventional and special munitions) to achieve decisive effects in a major operation or campaign. Successfully executed operational fires afford the commander the opportunity to shape the battlefield, control the tempo of the operation or campaign, and set conditions for decisive battle.[84]

Defined as "that intelligence which is required for the planning and conduct of subordinate campaigns and major operations within a theater of operations," Operational Intelligence circumscribes the combined intelligence effort. Through the collection, processing, evaluation, integration, and dissemination of operational information, the intelligence system must identify and locate those enemy operational centers of gravity, that

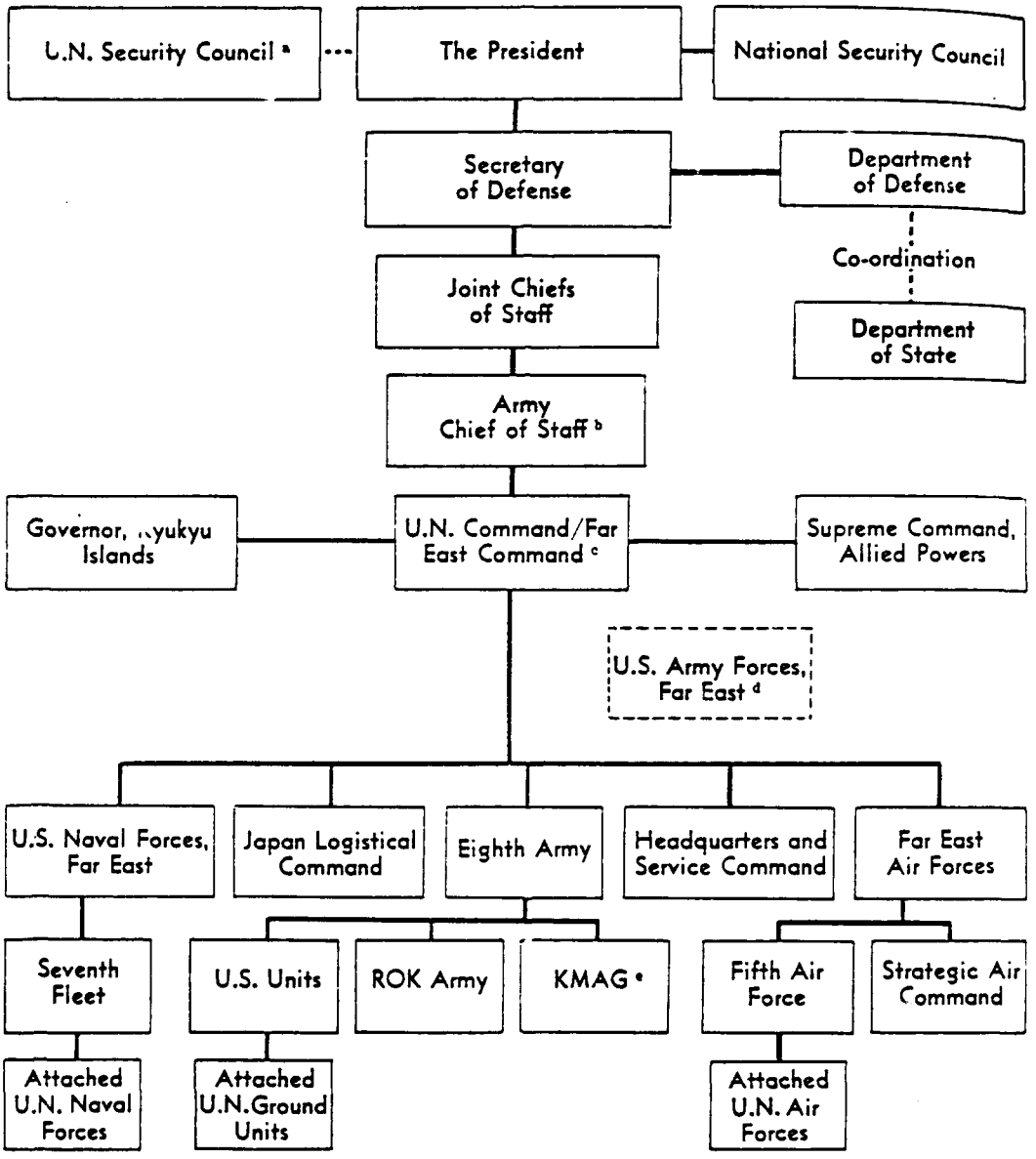
if successfully attacked, will achieve operational and/or strategic aims.[85]

Operation Protection seeks to conserve the fighting potential of the combined force by safeguarding friendly centers of gravity. Operational air defense, operational security, and operational deception denote the three most significant aspects of the protection OOS.

For a more detailed explanation of the operational operating systems, refer to the source document, TRADOC Pamphlet 11-9, Blueprint of the Battlefield.

Appendix 2

CHART 1—CHANNELS OF COMMAND, JULY 1951



[a] The U.N. Security Council had no command authority, but did receive biweekly reports from the U.N. commander.

[b] The Army Chief of Staff acted as executive agent for the Joint Chiefs of Staff.

[c] The UNC/FEC exercised operational control only over the air and naval forces under its command.

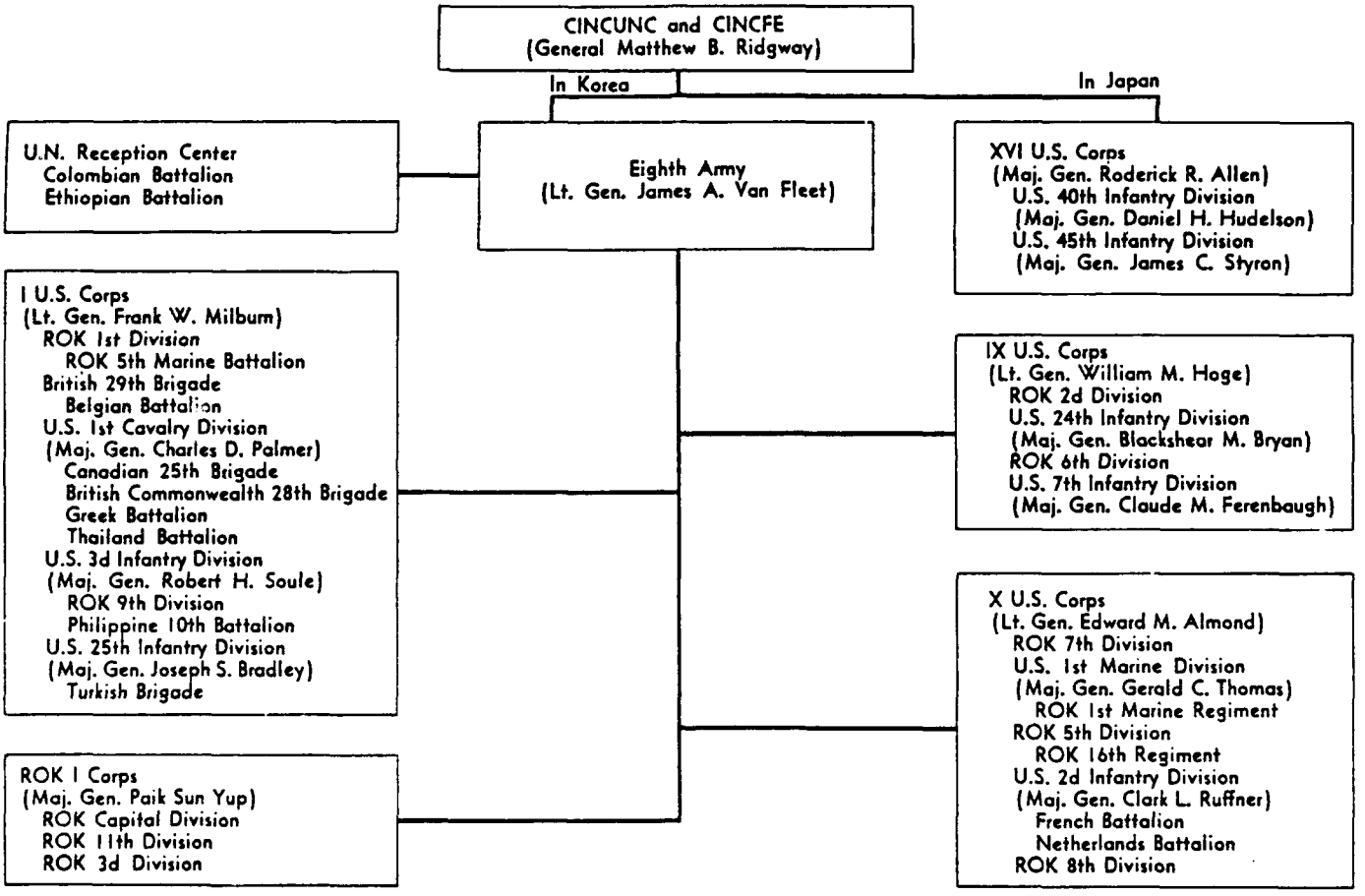
[d] Although Headquarters, U.S. Army Forces, Far East, had not been inactivated, it did not become operational until 1 October 1952.

[e] The Military Advisory Group for Korea was assigned to Eighth Army command. It continued to discharge its mission of assisting the ROK Army and provided liaison between the Eighth Army and the ROK Army.

(SOURCE: Walter G. Hermes, Truce Tent and Fighting Front, p. 54.)

Appendix 3

CHART 2—U.N. COMMAND/FAR EAST COMMAND, MAJOR GROUND FORCES, 1 JULY 1951



Source: Hq Eighth Army, Command Report, ACofS, G-3, bk. 4, pt. 1, 1 Jul 51; DOD General Officers Assignment List, 1 Jul 51, in OCMH files.

(SOURCE: Walter G. Hermes, Truce Tent and Fighting Front, p. 57)

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2. FM 100-5, Operations (Washington, DC: Headquarters, Department of the Army, May 1986), p. 164.

3. Ibid.

4. TRADOC Pamphlet 11-9, Blueprint of the Battlefield (Fort Monroe, VA: Headquarters, U.S. Army Training and Doctrine Command, April 1990), p. 1.

5. A working draft of FM 100-8, Combined Operations was in progress as of the writing of this monograph. It is not due to begin the staffing process until late in 1991.

6. FM 100-5, Operations (Washington, DC: Headquarters, Department of the Army, May 1986), p. 165.

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8. Unified Action Armed Forces (UNAAF)(JCS Pub 02) Washington, DC: The Joint Chiefs of Staff, December 1986), p. IV-1.

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10. Ibid.

11. FM 100-5, pp. 166-167.

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14. FM 100-5, p. 168.

15. Ibid.

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18. FM 100-6, p. 3-10.

19. FM 34-37, Echelons Above Corps Intelligence and Electronic Warfare Operations (Washington, DC: Headquarters, Department of the Army, September 1987), p. 10-5.

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25. James L. Stokesbury, A Short History of World War II (New York: William Morrow and Company, Inc., 1980), p. 175.

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27. Clausewitz, p. 617.

28. Ibid. See also page 596, where Clausewitz states that "Among alliances, [the center of gravity] lies in the community of interest."

29. Sun Tzu, The Art of War, Translated by Samuel B. Griffith (London: Oxford University Press, 1963), p. 78.

30. Clausewitz, pp. 596-597. See also pages 82-83 of On Strategy: The Vietnam War in Context by Colonel Harry G. Summers. Summers asserts that the North Vietnamese identified the enemy's strategic center of gravity as the alliance between the U.S. and the Republic of Vietnam, and designed to strike a "fatal blow" against it.

31. Ibid, p. 617.

32. Clausewitz, p. 631.

33. Ibid.

34. Ibid, p. 632.

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48. McMichael in Larger Units, p. 5-8.

49. Ibid, p. 5-18.

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53. Hermes, p. 20.

54. Hixson, p. 253.

55. Ibid, p. 261.

56. Fox, p. 146.

57. Hixson, pp. 257-258.

58. McMichael in Larger Units, p. 5-18.

59. Hixson, 257-258.

60. Appleman argues persuasively that the effects of combined operational fires provided the margin of difference for UN forces during the early stages of the war in Korea. See Appleman, p. 256.

61. Ibid, p. 256.

62. Russell F. Weigley, The American Way of War (Bloomington: Indiana University Press, 1977), p. 384.

63. Appleman, p. 256.

64. Millett, p. 489.

65. Hixson, p. 253.

66. Millett, pp. 502-503.

67. Hixson, p. 248.

68. Except where noted, the comments presented are those of the author based on a synthesis of briefings, professional readings, media presentations, and informal discussions at the School of Advanced Military Studies.

69. Dennis Steele, "The 100 Hour War," Army (April 1991), p. 18.

70. Colonel Thomas A. Cardwell, Command Structure for Theater Warfare The Quest for Unity of Command (Maxwell Air Force Base, AL: Air University Press, 1984), p. 73.

71. John H. Cushman, Command and Control of Theater Forces: Issues in Mideast Coalition Command (Cambridge, MASS: Harvard University Center for Information Policy Research, November 1990), pp. 1-2, Annex 2.

72. Colonel Richard W. Anderschat, "Factors Affecting Success in Coalition Command," (U.S. Army War College Study Project)(Carlisle Barracks, PA: U.S. Army War College, March 1986), p. 38.

73. John H. Cushman, Organization and Operational Employment of AirLand Forces (Carlisle Barracks, PA: U.S. Army War College, 1984), p. 8-9.

74. Brigadier General D.H. Smith, "Common Logistics--A NATO Commander's Dream," NATOs Sixteen Nations (June 1990), p. 37-39.

75. Hixson, p. 266.

76. The DECIDE-DETECT-DELIVER process is a synchronized fire support methodology that supports targeting and battle management. FM 100-15, Corps Operations, explains the process in detail. Briefly, during the DECIDE phase, the commander identifies and prioritizes the targets that, if successfully attacked, will contribute to friendly operational success. In the DETECT phase, intelligence collection assets and management efforts are focused to locate the targets identified in the DECIDE phase. Once located, targets are attacked in the DELIVERY phase. Battle damage assessment of the targets attacked provides a feedback loop to the DECIDE phase, where the process is refined, and new target selection and attack criteria is revised. Thus, the process is a dynamic one that makes the targeting process responsive to changing battlefield conditions.

77. Major Robert W. Noonan, "'Lightning Look'--Intelligence Interoperability," Military Review (January 1982), p. 50.

78. Cushman, p. 3-3.

79. Kenney, p. 10.

80. Hixson, p. 349.

81. TRADOC Pam 11-9, pp. 47-48.

82. Ibid, pp. 7, 12, and 42.

83. Ibid, pp. 14, 15, 50.

84. Ibid, pp. 12, 43.

85. Ibid, pp. 14, 15.

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